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Second annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system

Note by the Secretary-General

The Secretary-General has the honour to transmit to the General Assembly a letter dated 30 June 2013 from the Chair of the Board of Auditors transmitting the report of the Board on the progress in the implementation of the enterprise resource planning system (Umoja).

* A/68/50.

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Letter of transmittal

30 June 2013

I have the honour to transmit to you the second report of the Board of Auditors on the implementation of the enterprise resource planning system.

(Signed) Amyas **Morse**
Comptroller and Auditor-General of the United Kingdom of
Great Britain and Northern Ireland
Chair of the United Nations Board of Auditors

The President of the General Assembly
United Nations
New York

Second annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system

Summary

In August 2006, the General Assembly endorsed the Secretary-General's proposal to implement an enterprise resource planning (ERP) system across the United Nations Secretariat (the Umoja project). When implemented, the United Nations ERP system will span administrative and support functions in five areas: finance, supply chain and procurement, human resources, central support services, and programme and project management. It will encompass over 90 different entities within the United Nations system and represents a very challenging and complex business transformation project. It is the most important of a number of business transformations aimed at modernizing and creating a more cost-effective United Nations.

The Administration originally planned that the ERP system would be fully implemented across the Secretariat by the end of 2012 at a cost of $248.3 million. It is now implementing the ERP system in three functional phases: Foundation, Extension 1 and Extension 2 (see annex II). Deployment and stabilization of Foundation and Extension 1 is expected to be complete by June 2016, with deployment and stabilization of Extension 2 to follow by the end of 2018, six years later than originally planned. The Administration's forecast final cost for the project is now $348.1 million to December 2015, with at least an additional $30 million projected for contractual services to build, test and deploy Extension 2 between 2016 and 2018.

The present report contains the findings and recommendations of the Board's second annual review of progress and is based on an assessment of the project's status as at 30 April 2013.

Overall conclusion

There has been good progress since the last report of the Board. The Administration has taken positive action to address the legacy of past decisions and has placed the project on a sounder footing by designating a senior project owner, appointing an experienced permanent project director, introduced the concept of process ownership and engaged more fully the project's steering committee. The Board recognizes the significant efforts made by the ERP project in the last year to catch up on lost time, and complete the design and build of the technical solution for the Foundation phase (including the "get to green" recovery plan) to pilot this in July 2013 in support of the implementation of the International Public Sector Accounting Standards (IPSAS). The Administration now has greater clarity regarding the high level of challenge inherent in preparing the wider United Nations for the successful delivery of an ERP business transformation project. The project team is also aware that the level of challenge it faces will increase as the project moves into a phased, multi-site implementation, using multiple vendors, across both peacekeeping and the wider Secretariat.

While acknowledging the positive progress made, it remains unclear without a detailed implementation plan and spend profile for the project what progress should have been made for the $208.8 million already spent. The Board recognizes that establishing an integrated plan built on existing plans for each strand of the project will be complex, and acknowledges that management is attempting to address this in the time available, but believes the Administration urgently requires a detailed project plan with clear intermediate milestones linked to performance and quality measures. This should include full transparency around the justifications and assumptions used to underpin how and when the remaining resources will be used to support completion of the full scope of the build, implementation and deployment phases of the project.

With the Foundation phase imminent, there is still much that the Administration needs to do to organize the wider United Nations for successful implementation of the new ERP system. For example, questions remain about whether the wider Secretariat will have the capability to realize the potential benefits from the ERP system post-implementation that stem from: improved information to enable better decision-making; faster processing times to enable more responsive support to front line delivery; and a reduction in the time required on administrative processing tasks, creating the opportunity for cost savings or staff redeployment.

At a more fundamental level, there is a growing need for clarity and commonality of purpose among management and wider stakeholders on what a future United Nations global service delivery model might comprise. The Board acknowledges the ongoing dialogue among management on this issue, and also recognizes its very challenging nature given the strong vested interests and the complexity of existing organizational, managerial and governance structures. Progress in this area will help support both the implementation of the new ERP system and strengthen plans to secure tangible and measurable benefits, including cashable savings and more cost-effective delivery of critical United Nations activities. It will also reduce the risk of expensive retrofitting if the ERP system needs to be redesigned post-implementation; and enhance accountability for project delivery.

The Board concludes that the ERP system, if implemented successfully, remains a significant and essential opportunity to modernize the business administration of the United Nations. However, owing to the challenges identified, and the continuing legacy of past project problems and decisions which will take some time to resolve, the Board is not yet in a position to provide assurance that the ERP project will deliver its full functionality within the existing forecasts of time or cost, or deliver the envisaged qualitative and quantitative benefits that would represent an optimal return on investment.

Key findings and recommendations

The Board has identified the following key findings:

The Board notes the positive response to its previous report, in particular, the appointment of an experienced project director, the increased engagement between key stakeholders and the project, and the steps taken to strengthen the governance of the project. In terms of wider business transformation, the Board also notes the initial steps taken by the Administration towards introducing the concept of process ownership to support the adoption of common ways of working across the Secretariat and benefits realization. Since the time of audit, the Administration has

demonstrated further progress in addressing many of our concerns; for example, process owners have formally agreed to the key processes in advance of the pilot, enabling the pilot to proceed on a firmer footing.

The Board notes the high level of support being provided by the Umoja project team to the pilot, which started on 1 July 2013. The Administration has recognized that one of the immediate lessons emerging from the pilot is that this level of support will be unsustainable once the first phase of full implementation starts in October 2013 across all peacekeeping missions, particularly as the project team is already fully stretched and showing signs of fatigue. The Administration and the project team are well aware of this issue and the potential risk it poses to successful implementation, and the urgent need to develop a revised strategy that protects the key milestones but enables missions to prepare for implementation sooner and reduces reliance on the core project team.

The Administration needs to focus on how data from the ERP system will be used to deliver benefits. The ERP system provides the foundation for a step-change in the exploitation of data and information. But this is contingent on (a) understanding of data opportunities, (b) capability to utilize data and (c) organizational buy-in for acting on data insights. Management is aware of this issue, and the Administration has identified over 60 super users who are to be trained to utilize data from the ERP system (data analytics) in support of, for example, realizing results-based management. This is an important and positive development and its sustainment is key to the ERP project delivering the envisaged benefits.

There is significant potential to achieve more efficient and effective administrative processes, with the Administration forecasting potential annual benefits of between $140 million and $220 million, to be realized one year after stabilization. The Board recognizes that benefit plans are being revisited as part of the pilot and implementation phases of the project. It will be important that any assessment take account of the actual time and staff resources needed to manage new processes, including the levels and types of transactional demand. Process owners are making progress in developing more detailed and updated benefits plans, but clear strategies remain to be developed to handle the human resource management implications of potential staff reductions and redeployments that might ensue from wholesale streamlining of administrative processes.

The appointment of "process owners" to own and drive new ways of working is a positive development, but it remains unclear whether they have the authority, or supporting management system, required to ensure consistent ways of working across a fragmented and decentralized organizational structure. There is no clear and consistent approach to building benefits realization plans, and there is an absence of defined mechanisms to resolve any disagreement between process owners and the heads of departments or offices about the actions regarding changes in staffing and working practices needed to realize benefits from more efficient working. It is also unclear how, for example, a process owner will mandate the reduced cost of a process once it has been determined via pilots and the early phases of implementation. These issues are becoming more critical as the first pilot and implementation of the ERP system approach. On a broader level, many organizations find fully embedding process ownership extremely challenging, and the Board cautions against setting an overly optimistic time frame; it is likely that this will need to be continuously refined post-project implementation.

There is no agreed future service delivery model for the United Nations. The Administration acknowledges that ideally a future service delivery model would have been designed in advance of the ERP project. The Board recognizes the significant challenge of defining a new United Nations global service delivery model given the strong vested interests of a wide-ranging group of stakeholders, and the complexity of existing organizational, managerial and governance structures. The Board, however, notes that the absence of a clearly defined target service delivery model could result in future costs to retrofit the ERP implementation. The Board also notes that the absence of a clearly defined target service delivery model undermines management's accountability for delivering the full scope of the ERP project to time and budget, and the delivery of associated benefits.

As at 31 March 2013, the Administration had spent $208.8 million (55 per cent of the total budget) on the project, but it remains unclear what level of progress and readiness should have been achieved for this level of investment. The Board estimates that by the time the build phase commenced (July 2012) some $142 million had been spent on preparation and design, despite significant design work still required at that point. At the time of this reporting design for the Foundation phase was almost complete; the project team considers, subject to the pilot, that it has a viable technical solution for the Foundation phase. Without a detailed integrated plan, showing clear budgets and milestones, which the Board recognizes requires strong technical expertise in project management to achieve, neither the Administration nor the Board can provide complete assurance that the project is on track in terms of what exactly should have been delivered to date (and the status of project readiness) versus the level of resources consumed. The Board considers, given previous delays, the state-of-project progress and readiness is less than it should be for the level of expenditure.

Although the Administration has improved its project management practices, issues remain to be fully addressed, including more accurate time and cost forecasting informed by variance analysis and a better understanding of project risks. As management recognize, following full deployment to peacekeeping, project complexity will increase requiring significantly enhanced project management. During the deployment beyond peacekeeping, the project team will be: (a) deploying into disparate organizations with varying cultures, differing ways of working and levels of organizational readiness; (b) managing at least two build vendors; (c) managing the integration of the Foundation and Extension phases; and (d) managing multiple system launches and concurrent deployments in globally dispersed locations. The Administration is aware that the coordination, management and control effort required to successfully execute under these conditions requires strong project management controls. There is a need to reassess the capability and capacity of the project team as it moves through different phases of the project life cycle, while balancing this against the need for continued cost containment.

The lack of an overarching commercial strategy from the project outset has added significant complexity to an already ambitious and highly challenging project. The Administration has engaged multiple vendors on various commercial terms without an overarching commercial strategy. While recognizing the considerable commercial skill being demonstrated by the project director in managing the existing commercial arrangements, the Board was concerned at the time of audit that the rationale for the current multi-vendor model was insufficiently developed. For example, the Board saw no evidence that the implications of the revised deployment

approach (Foundation, Extension 1 and Extension 2) were reflected in an updated commercial approach, nor whether potential implications of multiple major build vendors (for example, additional complexity, integration challenges, and differing cultures and operating styles) were considered in the overall project plan. Since the audit, the Administration has presented evidence of how it is actively managing this situation, including the need to strengthen the project team to manage the potential addition of further vendors to the project. This is an ongoing issue that the Board will return to in our next audit.

The project team has arranged detailed reviews of the project by the software provider and the build vendors, but key aspects of the project, including the revised timetable and budget, have not been subject to regular, systematic independent challenge. For example, forecasts are focused on showing how the project timetable and costs remain on track according to plan, and contingency planning is underdeveloped. Actions taken to contain actual or expected cost and time overruns (for example, deferral of expenditure, cutting of costs or rescheduling of activities) are not immediately visible to the steering committee, nor are the consequences of such actions clearly assessed.

The Administration has taken steps to improve the governance of the ERP project but there remains a need for senior management to define and communicate its wider aims for transforming the Organization. The Administration has designated a senior project owner, appointed a permanent project director, started to introduce the concept of process ownership and taken steps to engage more fully the project's steering committee. The Board welcomes management's increasing focus on key issues such as organizational readiness and active discussions at the senior level on the Organization's future service delivery model, which demonstrate the increasing priority being given to the ERP project. The ERP project is, however, one of a series of interdependent transformation programmes which each require a series of enabling actions to be taken if they are to deliver the intended benefits. The actions include decisions around the release or redeployment of staff, the Organization's service delivery model and the authority of process owners to drive business change and benefits realization across the Secretariat. The implementation of these transformation programmes needs to be integrated to support their achievement, with clear sequencing to maximize the chances of success based on a good understanding of the Organization's decentralized structure, culture, and ability to absorb change.

Key recommendations

In the light of the above, the Board makes detailed recommendations in the main body of the present report. In summary, the main recommendations are that, the Administration:

(a) **Design, communicate and implement a plan within each business area to exploit the defined benefits of up-to-date and consolidated data from the ERP system, including how it intends to realize both qualitative and quantitative benefits of improved information;**

(b) Continue to embed the concept of process ownership, including establishing an agreed process for solving disagreements between process owners and heads of departments and offices prior to and following the implementation of the ERP project;

(c) Adopt a consistent approach to benefits realization which includes: (i) clear categories of qualitative and quantitative benefits; (ii) the measurement of different types of benefits; (iii) a plan to realize the benefits; and (iv) indicators to monitor when the benefits have been realized;

(d) Finalize as a matter of urgency the work to develop: (i) a detailed and fully integrated project plan; and (ii) significantly enhanced project management arrangements to enable more detailed cost and timetable forecasting, and control of risks, including appropriate scenario and contingency planning;

(e) Finalize as a matter of urgency the work to establish a methodology to link budget to milestones and deliverables;

(f) Prepare an overarching commercial strategy which seeks to: (i) optimize the value from major suppliers to the ERP project, balancing cost and risks to delivery; and (ii) sets out the parameters against which all future procurements should be undertaken;

(g) Design and implement assurance mechanisms which enable the steering committee to challenge the project on scenarios which may impact on current performance and on future delivery.

I. Background and key changes to the project between 2006 and 2012

1. In August 2006, the General Assembly endorsed the Secretary-General's proposal to implement an enterprise resource planning (ERP) system across the United Nations Secretariat to replace existing systems such as the Integrated Management Information System (IMIS) (see resolution 60/283). Through the use of ERP systems, organizations can integrate all aspects of their operations and facilitate the flow of information between all business functions. Such systems also incorporate industry standard processes within their design.

2. The United Nations proposed ERP system, known as Umoja, spans most of the Organization's administrative and support functions across five areas: finance; supply chain and procurement; human resources; central support services; and programme and project management. It also encompasses many entities within the wider United Nations system beyond the core Secretariat, many of which have different governance and accountability structures, funding sources and ways of working (see annex I). For this reason, among others, the ERP project represents a very challenging and complex business transformation project.

3. The ERP project started in 2007 and was originally expected to be completed by 2012 at a cost of $248.3 million. It is currently expected to be completed by the end of 2018 at a cost of at least $378.1 million. As at 31 March 2013, the Administration has spent $208.8 million (see annex II). The Administration plans to deploy the system in three functional phases: Foundation, Extension 1 and Extension 2 (see annex III) across a series of five clusters, or groups of Secretariat entities.

II. Mandate, scope and methodology

4. In December 2011, in resolution 66/246, the General Assembly requested the Advisory Committee on Administrative and Budgetary Questions to request the Board of Auditors to conduct a comprehensive audit of the Administration's implementation of the ERP project. The General Assembly requested that the Board report annually on the project, starting at the main part of the sixty-seventh session of the General Assembly.

5. The present report contains the findings and recommendations of the Board's second annual progress review. The Board examined the project to assess progress since the preparation of its previous report (A/67/164) and to follow up the implementation of its previous recommendations. The report also includes the Board's response to specific requests made by the Advisory Committee in its November 2012 report on the ERP project (A/67/565).

6. The Board continued to assess the Administration's implementation of the ERP project in five key areas (see table 1).

Table 1
Five key elements for designing, initiating and managing successful projects

Key element	*Criteria*
Desired outcomes	Are desired outcomes understood by the organization?
	Does the organization have a mechanism to monitor achievement of the desired outcomes?
Business transformation	Does the organization have the capacity and willingness to realize the desired outcomes?
	Has the organization engaged its stakeholders and managed their expectations?
Project management	Is the organization monitoring and managing delivery effectively, including against a clear project timetable and implementation plan?
	Is the organization monitoring and managing costs effectively against a budget which is linked to project deliverables?
Project assurance	Is the project realistic and feasible, with a robust cost forecast and timetable?
	Is there an effective system which gives assurance over project progress, including time and cost considerations?
Governance	Are effective governance and accountability arrangements in place for the project?
	Are effective arrangements in place to manage business transformation?

Source: Board analysis of the Umoja project data.

7. The Board's findings, recommendations and conclusion reflect its assessment of the project at the time of its audit undertaken in April 2013, as well as further updates provided by the Administration through to the end of June 2013. This assessment was undertaken in advance of the pilot of Umoja Foundation. It was not possible to review the ERP system in operation and, as a result, the Board offers no assurance on the effectiveness or functionality of the live system.

8. The Board coordinated closely with the Office of Internal Oversight Services (OIOS) to understand and utilize the results of recent internal audits, including OIOS audits of the implementation of ERP software (Report 2013/020), Umoja software system (SAP) implementation and the information and communications technology (ICT) infrastructure supporting implementation of the ERP project and IPSAS. The Board noted a strong consistency in the findings of OIOS and aspects of its own findings where relevant.

III. Findings and recommendations

A. Follow-up of previous recommendations of the Board of Auditors

9. The Administration has taken clear steps towards implementing a number of the Board's previous recommendations. The Board notes in particular the steps taken to improve the governance of the ERP project, to introduce process ownership,[1] and to engage more fully the project's steering committee. The Board also welcomes the greater emphasis on key issues such as organizational readiness to receive the ERP system. The Board remains concerned about a number of aspects of project control which are discussed in the main body of this report.

10. Of the 13 recommendations made in the Board's previous report (A/67/164), 3 (23 per cent) were fully implemented and 9 (69 per cent) were under implementation. One recommendation was not implemented, related to establishing a formal approach to managing and improving business processes to enable continuous reform and improvement following implementation of the ERP system. The Board reiterates this recommendation on which it expects progress in 2014.

11. Annex IV summarizes the position on implementation. Further commentary on progress against previous recommendations is contained in the relevant sections of the present report.

B. Desired outcomes

12. The Administration has specified that its high-level aims in implementing an ERP system are to:

- Support management reform, through improved information, accountability and the better direction of resources
- Achieve more efficient and effective working practices, through the use of improved systems and processes (see A/64/380).

13. The Administration forecasts that it will generate annual, recurring financial benefits of between $140 million and $220 million (see A/66/7/Add.1) through productivity gains from improved working practices, and efficiency gains from improved management information. Thus, as a result of the revised deployment approach, the Administration is projecting that once Foundation and Extension 1 are deployed and stabilized, annual cashable benefits of between $80 million and $150 million should be achieved in 2017. Once Extension 2 is deployed and stabilized, the potential annual benefits of the ERP system should increase, as noted to between $140 million and $220 million by 2019.

Progress on management reform — improved information

14. The ERP system provides the foundation for a step-change in the exploitation of data and information through access to up-to-date, consolidated financial and performance information from across United Nations Funds and Programmes; this is

[1] Process owners are senior managers with responsibility for introducing the changes required to implement the ERP system across its five functional areas (for example, human resources). They are also members of the project's steering committee.

the first step towards implementing, for example, results-based management. Realizing the benefit of the improved management information will require staff with the ability to interrogate and distil complex datasets into clear information upon which management can make decisions, including a comprehensive plan at all levels of the United Nations, to provide assurance that aggregate datasets are built on accurate data at the transactional level.

15. Since the time of the audit, the process owners, supported by the project team, have identified over 60 "super users" who will be trained to interrogate the new system and develop improved business intelligence for management. It is important that there be a sustained commitment by the wider Administration to support and maintain this capability and use the enhanced information and insights in business areas post-implementation. While the plan to develop "super users" is a positive development, the Administration now needs to develop a clear vision of what information is required, and how it would be used in each business area to drive benefits, and how the "data warehouse" for storing ERP data will be joined to other corporate information. The Board will revisit this issue in its next report.

16. **The Board recommends that the Administration design, communicate and implement a plan within each business area to exploit the defined benefits of up-to-date and consolidated data from the ERP system, including how it intends to realize both qualitative and quantitative benefits of improved information.**

Progress on management reform — accountability and better direction of resources

17. In January 2013, the Secretary-General wrote to heads of departments and offices setting out the key responsibilities of process owners, noting that they will act as principal change agents in their respective functions, for example, finance or procurement. The process owners' responsibilities include management and oversight for moving to the new, optimal "to be" process model, including the development and sign-off of business cases showing expected qualitative and quantitative benefits.

18. The Board notes the progress made by process owners towards developing a business case with each department or office that sets out a detailed view of potential benefits. This may result in a different level of financial benefits than that estimated at the start of the project, or the identification of previously unknown benefits. The Board considers that this approach needs to be enhanced to capture some of the key principles of business process improvement, for example:

- Establishing a consistent approach to building a benefits realization plan, including a common definition of the types of qualitative and quantitative benefits that may be realized, when they might be realized, and the process of signing off that they have been realized
- Improving coordination between process owners to mitigate the risk that their individual plans for benefits result in duplication of, or overlapping, financial benefits between corporate functions.

19. **The Board recommends that the Administration adopt a consistent approach to benefits realization which includes: (a) clear categories of qualitative and quantitative benefits; (b) how the different categories of benefits will be measured; (c) a plan to realize the different benefits; and (d) a process to monitor and sign off when the benefits have been realized.**

20. The ERP project will entail the standardization of 321 business processes across the United Nations diverse range of departments and offices, many of which are characterized by different working cultures and practices as well as different governance and funding arrangements. The process owners are responsible for achieving benefits, but the process to resolve any disagreements between process owners and heads of departments and offices regarding what benefits can be achieved or the specific actions required to achieve them (such as decisions on staffing and working practices) has yet to be formalized. On a broader level, many organizations find fully embedding process ownership extremely challenging, and the Board cautions against setting an overly optimistic time frame; it is likely that this will need to be continuously refined post-ERP implementation.

21. **The Board recommends that the Administration continue to embed the concept of process ownership, including establishing an agreed process for solving disagreements between process owners and heads of departments and offices prior to and following the implementation of the ERP project.**

Progress on more efficient and effective working practices

22. Where practical, the Administration intends to adopt the standard "off the shelf" processes contained in the ERP system, which the Administration considers form the basis for more efficient and effective working practices. In its last report, the Board identified high levels of duplication, variability in working practices, error and rework in two important business processes.[2] Some of the opportunities to improve working practices were not dependent upon implementing the ERP project, with the risk that inefficiencies such as staff working around the existing IMIS system may remain. There is an inherent risk, particularly in the early stages of an ERP implementation that staff will work around a system that is new to them, which could in turn undermine the quality of data input into the system at the transaction level compromising the overall aggregate dataset. The Board considers that there is a significant opportunity for more effective service delivery (through increased speed of processing and reduced errors) and improved efficiency (by reducing the effort required).

23. As the Board previously reported, the original benefits case was built using industry benchmarks, based on a number of assumptions that may or may not hold true in the United Nations context. In the Board's view this was a reasonable approach at the time, but now needs revisiting as part of the pilot and implementation phases of the project. Until the new business processes are implemented, the actual effort, and therefore staff time required to administer the process, and importantly to meet demand can only be estimated. For example, different types of demand require different levels of effort, with "easy" transactions taking far less time than "difficult" transactions to process. Typically, for more difficult transactions, e.g., a complex procurement request, there is a significant amount of staff effort which is required "outside" the information technology system in order to move the process along to the next stage. Until the mix of easy and difficult types of transactions is known, it is difficult to estimate the number of staff required to process the overall number of transactions.

[2] Travel management and procurement.

24. The Board considers that as the project matures, the potential value of the benefits will become clearer, and will need to be assessed against the costs of implementation, including the likelihood that, at least in the initial period post-implementation when it is likely that there will be a temporary increase in costs and a potential drop in performance as the new ways of working embed. The Board's primary concern in this regard is that the benefits from the ERP implementation must be translated into either budget reductions, cash available for return to Member States or transferred into other activities and clearly negating the need for increased funding by Member States. The onus is on the Administration to objectively demonstrate this to Member States by establishing clear baselines and an appropriate measurement methodology as an integral part of the ERP implementation.

25. The Board has seen no evidence of a standard approach, and the relevant skills and expertise in business process improvement at all locations, needed to construct and implement such a methodology consistently across all business units.

26. **The Board recommends that the Administration design a robust methodology which clearly defines: (a) the current status of operational performance in each business unit regarding time, cost, quality; (b) the level of future performance to be achieved post-implementation; (c) the approach and investment involved to achieve the future performance target; and (d) how the benefit achieved will be measured and reported.**

27. The pilot of the Foundation phase is the first opportunity to see the 122 new processes relating to finance, assets, procurement, property, equipment and inventory management that are required to support the automation for the adoption of IPSAS operating in a United Nations organization. It is therefore an integral part of developing the Administration's understanding of whether the technical solution works, and the potential benefits of the ERP project. The project team, working with the pilot site for Foundation (the United Nations Interim Force in Lebanon (UNIFIL) and the United Nations Special Coordinator for Lebanon (UNSCOL)) and the Department of Field Support, intends to perform analyses of the impact of the new processes. The team will document the detailed "as is" and "to be" ways of working, enabling role-mapping of staff to tasks, and a better understanding of how staff could be allocated to new and changed roles, and the identification of security and training needs. The Board notes that at this point the potential efficiencies that could be achieved through the ERP project will be better understood, and this could then inform the process owners when calculating the potential qualitative and quantitative benefits for their functional area across the Organization.

28. At the time of this report, the pilot had started. The Board notes the understandably high level of support being provided by the Umoja project team to the pilot. The Administration has recognized that one of the immediate lessons emerging from the pilot is that this level of support will be unsustainable once the first phase of full implementation starts in October 2013 across all peacekeeping missions, particularly as the project team is already fully stretched and showing signs of fatigue. The Administration and the project team are well aware of this issue and the potential risk it poses to successful implementation, and the urgent need to develop a revised strategy that protects the key milestones but enables missions to prepare for implementation sooner and reduces reliance on the core project team.

29. The project team's role mapping exercise at UNIFIL had identified that substantially fewer staff members will need access to the ERP system, but UNIFIL management has requested all staff with previous system access be allocated similar functions after go-live. As the pilot site, UNIFIL has adopted a cautious approach and considers that they can decide later on staffing implications. This approach may reflect the significant challenges facing the mission in terms of its core mandate, but it also reflects the absence of a clear strategy, driven by senior management, and the necessary support mechanisms for local management, to handle the staffing implications of ERP implementation.

30. The Board wants to emphasize that as currently constituted, the pilot is in effect a test of the technical functionality of the system and the roll-out strategy. The pilot is not a demonstration of the benefits from more efficient working practices and how this will be translated into tangible and potentially cashable savings. Without this clear demonstration at the pilot phase, the Board considers that securing benefits and buy-in from management and staff, and changing attitudes and behaviours, will be harder to achieve.

31. The Board notes that with only three months between the pilot deployment of Foundation at UNIFIL and the wider deployment of Foundation throughout peacekeeping, the opportunity to extract maximum value from the pilot to help mitigate project risks is limited. The Administration is facing the very real constraints that the legacy of delays imposed on the project and the need to commit to firm milestones, but recognizes that it needs to manage the risks associated with the limited time to adjust its roll-out strategy after the pilot; for example, by assessing lessons as they occur during the course of the pilot and building those into the full implementation strategy.

32. **The Board recommends that the process owner for finance use the results of the UNIFIL pilot to refine any assumptions around potential qualitative and quantitative benefits when developing benefits realization plans for each department or office.**

33. **The Board also recommends that other process owners adopt this approach when developing benefits realization plans during the pilot of their respective business processes.**

C. Business transformation

34. The Board has previously emphasized that the implementation of the ERP project needs to be managed as a business transformation project as the primary aims are, following successful delivery of the technical solution, to transform the administration of the United Nations. The Board has identified preconditions and circumstances common to global organizations that have successfully transformed services and operations, including: a clear vision and business model, ownership and leadership for change at senior levels; clear communication on the need for change; funding and governance mechanisms that support change; and an organizational structure that can readily adapt to change (see A/67/651). The Administration expects the ERP implementation to be accompanied by changes to its management framework, including reform of the Organization's service delivery model and adjustments to the accountability and responsibility framework (ibid.).

Future service delivery model

35. The Board notes that there is no clear future service delivery model describing the modern business administration that the United Nations will become post-implementation of major transformations, including the ERP project. Such a model typically includes an articulation of how the organization will organize its resources to achieve its strategic objectives, and the organizational structure this would require, for example shared service centres, the location of administrative functions or outsourcing. Without this, there is a risk that individual transformation initiatives such as the ERP project will not be delivered in a manner which supports any future organizational design of the United Nations.

36. In the previous report, the Board noted that responsibility for advancing work on the service delivery model was to be passed to the Change Implementation Team of the Executive Office of the Secretary-General. Recognizing the need for consistent and clear communication to staff and stakeholders, the Board recommended that the Administration assign clear responsibility for all associated tasks and publish a timetable for development of proposals on the issue. The Administration has reported that a timetable has not been published although there is an ongoing dialogue among senior management on the service delivery model.

37. In practical terms a decision on the service delivery model has increasingly important tactical implications for deploying and supporting the ERP system. They include the number and location of service centres, the number and location of staff to be trained and system roles, the clarity of benefits to be realized and the deployment approach with the greatest likelihood of success.

38. The Administration acknowledges that ideally the future service delivery model would have been designed in advance of the ERP project but that it faces a significant challenge in defining a new United Nations global service delivery model given the strong vested interests of a wide-ranging group of stakeholders, and the complexity of existing organizational, managerial and governance structures. The Board considers, however, that the absence of a defined destination service delivery model increases the risk of expensive retrofitting of the ERP. It would also enhance management's accountability for delivering the full scope of the ERP project to time and budget, and the delivery of associated benefits.

Awareness and support for business transformation

39. Communicating the aims, approach and impact of change is integral to successful business transformation. The previous report of the Board highlighted a lack of structured engagement with stakeholders, the lack of a communications or engagement strategy and, in spite of efforts made to engage with staff at Headquarters and at other offices, limited awareness among staff of what will be expected of them if the ERP system is to be implemented successfully. The Board recommended that the project director: (a) establish the level of engagement with the project across the Organization; (b) develop plans for addressing any shortfalls in communications or engagement; and (c) develop a communications and engagement strategy for the implementation phase.

40. The Board notes that the project team is implementing a comprehensive communications and engagement strategy, consistent with the Organization's existing communication approaches and utilizing a range of mechanisms including newsletters,

meetings, videoconferences, town hall meetings and web updates. However, the project team has not established baseline levels of awareness among staff or key stakeholders and has therefore not implemented plans to address known gaps in awareness.

41. The Board emphasizes that the success of the ERP projects is significantly determined by the focus on business transformation and that communication and engagement is key to achieving support and buy-in for the change. The Board notes that improvements could be made such as:

- Routinely tracking the impact of communications and change events to focus effort on the most effective approaches
- Providing the steering committee with routine information on the outcomes of communication and engagement
- Agreeing how to communicate to staff the human resource management implications of the ERP project, such as the potential staff reductions and redeployments that might ensue from wholesale streamlining of administrative processes.

42. The project's implementation approach focuses initially on peacekeeping missions. One of the key reasons for deploying the ERP system in this area first is that it is considered by the Administration to be relatively homogenous and amenable to a "command and control" approach. While the Board recognizes the merits of this approach, it notes the project team's concerns that the task of implementing the ERP project in the differing working cultures and management structures in the wider United Nations will present a far greater challenge. An assessment of the most effective methods would provide an opportunity to design a more refined communication approach for future roll-outs.

Capability and capacity to achieve business transformation

43. The Board is concerned that the Administration may invest insufficient time and effort in providing United Nations staff with the skills, capacity and capability to effectively use the new ERP system. The cost of training United Nations staff is to mainly be borne out of existing departmental training budgets, but the Board has seen no evidence that a training-needs analysis has been performed, an assessment that current training budgets will be adequate.

44. **The Board recommends that the Office of Human Resources Management confirm that the current training budget will fund the appropriate level of training for the required number of staff.**

45. The Board continues to note that the United Nations has no formalized approach to continuous reform and improvement of business processes. Such an approach, in addition to improving business process performance more generally, would help embed the new business processes following implementation of the ERP system by, for example, identifying and solving problems with the new processes, monitoring whether new processes are delivering the forecast qualitative and quantitative benefits, and sharing best ways of working across the Organization. The lack of such an approach will inevitably lead to differences in how people carry out the same task even after the ERP system is implemented, which means that the opportunity to make efficiencies by introducing standard ways of working is unlikely to be fully realized.

46. The Board reiterates its previous recommendation that the Administration establish a formal approach to managing and improving business processes to enable continuous reform and improvement following implementation of the ERP project.

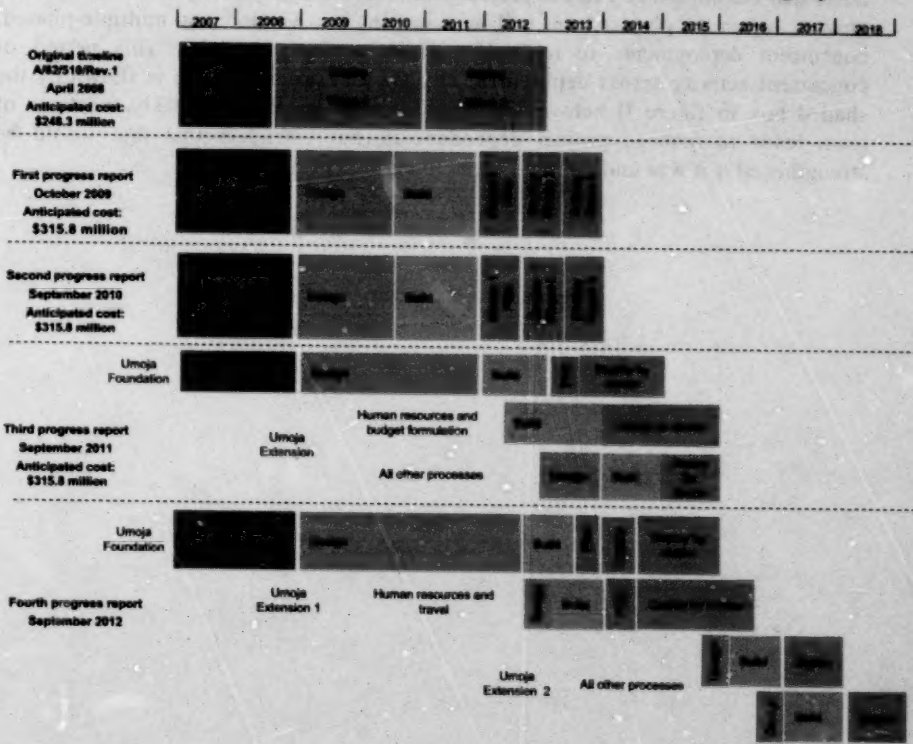
D. Project management

47. In its first progress report, the Board emphasized that in order to deliver a project successfully, it is important to have a clear timetable and implementation plan for delivery, linked to budgets allocated to fund the various project tasks, including an allowance for any likely risks to delivery which may arise. Since cost escalation and delays are common in major projects, it is also important to identify critical paths and review points for updating costs and timelines so that options can be assessed on a realistic basis before key decisions are taken.

48. Since the ERP project started in 2007, it has been subject to substantial delays, cost escalations and changes to the proposed deployment approach (see figure I). The Administration originally expected the project to be completed by the end of 2012 at a cost of $248.3 million. It now expects it to be completed by the end of 2018 at a cost of at least $378.1 million (see annex II). As at 31 March 2013, the Administration had spent $208.8 million on the ERP project. The Administration originally planned to implement the system across the Secretariat in two waves. It now plans to deploy the system in three functional phases: Foundation, Extension 1 and Extension 2 (see annex III), using a staggered approach across a series of five clusters, or groups of Secretariat entities.

Figure I

Changes in the deployment timetable and anticipated final cost of the ERP project



49. In its last report, the Board highlighted serious weaknesses in the management of the ERP project and recommended (A/67/164, para. 52) that the Administration: (a) establish a detailed project plan linking the budget to milestones and deliverables; (b) clearly set out who owns each part of the budget and what they are responsible for delivering; (c) establish arrangements for capturing information on expenditure and progress to enable it to more effectively monitor progress, maintain closer control over costs and improve decision-making about future budgets and expenditure.

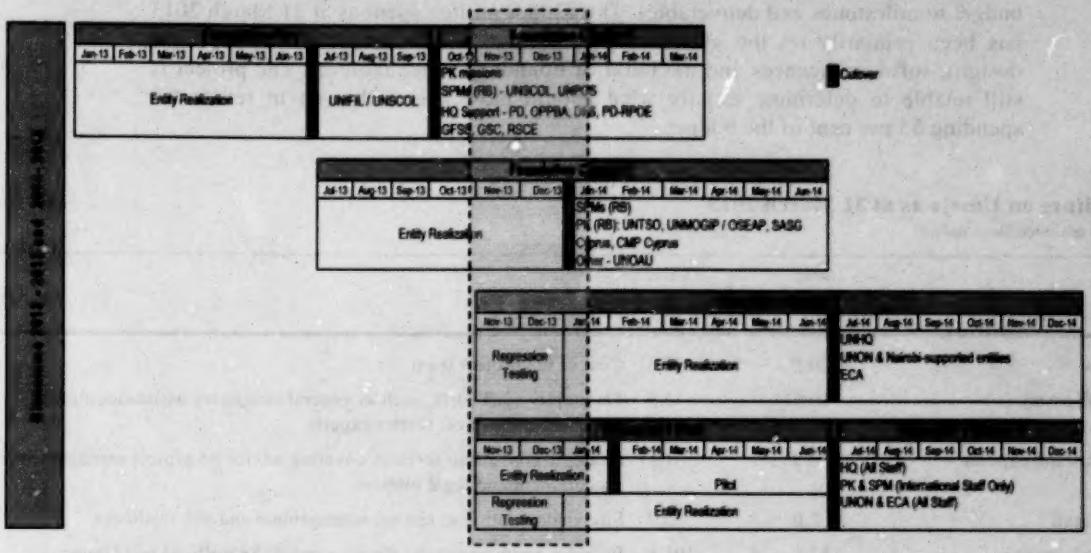
Project planning

50. The Board considers that an integrated project plan is a fundamental tool for managing project performance and is necessary for determining what work remains and how much it will cost to complete it. Without one, the project cannot undertake appropriate scenario and contingency planning exercises to inform robust project management plans and activities.

51. The Board has seen evidence of increased planning activities but there remains no single integrated project plan that captures all activities to be undertaken by the project team, system build contractors or the wider United Nations. For example, at the time of the audit, a high-level timeline had been created by the build vendor for Foundation, but it ended on 1 July 2013 and was insufficient to enable monitoring of project dependencies. At a more detailed level, plans have been created for individual aspects of the project (for example, testing and training) and by each of the build vendors, but they are not integrated and it is not possible to establish a critical path for the project or to easily determine progress with the project overall.

52. The Board recognizes that establishing an integrated plan will be complex, but notes that the complexity of the project will increase significantly from late in 2013 onwards when the project team will be managing two vendors and multiple-phased, concurrent deployments in multiple entities across the globe. This period of concurrent activity across deployment clusters and project phases is shown by the shaded box in figure II below. The Board acknowledges the weekly meetings of team leads to manage project dependencies, but considers that that would be strengthened if it was underpinned by an integrated project plan.

Figure II
Deployment schedule for the ERP project



Source: A/67/360, annex III.

Abbreviations: CMP, Committee on Missing Persons in Cyprus; DFS, Department of Field Support; ECA, Economic Commission for Africa; HQ, Headquarters; GFSS, global field support strategy; GSC, Global Service Centre; OPPBA, Office of Programme Planning, Budget and Accounts; OSEAP, Special Envoy to Pakistan; PD, Procurement Division; PK, peacekeeping; RB, regular budget; RPOE, recovery point objective; RSCE, Regional Service Centre — Entebbe; SPM, special political mission; SASG, Special Assistant to the Secretary-General; UNOAU, United Nations Office to the African Union; UNMOGIP, United Nations Military Observer Group in India and Pakistan; UNON, United Nations Office at Nairobi; UNPOS, United Nations Political Office for Somalia; UNSCOL, Office of the United Nations Special Coordinator for Lebanon; UNTSO, United Nations Truce Supervision Organization.

53. The Board recognizes that the implementation of IPSAS is a key driver to the scheduling of the ERP project and the driver behind the decision to prioritize the implementation of the finance business processes. The Board has produced a separate report on the implementation of IPSAS (A/67/564), in which it notes the increased integration of the ERP and IPSAS roll-outs, and the increasingly close working of the respective project teams.

54. As we have highlighted in section II of the present report, because the project has yet to be piloted, there is no basis upon which the Board can be assured of the feasibility of the technical solution that has been developed for the Foundation phase. The Board recognizes that the solution has been developed by expert contractors and a technically skilled ERP project team and reviewed by the software provider and build vendors. Until there is clear evidence from the pilot and early phases of implementation of a viable technical solution, there is an inherent uncertainty about the project plan and forecast costs.

Expenditure against progress

55. The Board previously highlighted the inability of the project team to link the budget to milestones and deliverables. The $208.8 million spent as at 31 March 2013 has been primarily on the system design (design vendor and staff input to the design), software licences and the build of Foundation (see table 2). The project is still unable to determine exactly what should have been achieved in return for spending 55 per cent of the budget.

Table 2
Expenditure on Umoja as at 31 March 2013
(In millions of United States dollars)

Object of expenditure	*Actual expenditure as at 30 April 2012*	*Actual expenditure as at 31 March 2013*	*Board's comments*
Staff costs	20.5	33.3	Cost of the project team
Other staff costs	10.9	15.5	Temporary staff costs, such as general temporary assistance-funded positions and subject matter experts
Consultants and experts	0.9	1.6	Strategic consulting services covering advice on project management, procurement and legal matters
Travel of staff	2.0	2.7	Site visits relating to change management and site readiness
Contractual services	54.5	101.8	Includes payments to the design vendor ($x million) and Umoja Foundation build vendor ($22.9 million) and Umoja Extension 1 build vendor ($2.5 million)
General operating expenses	9.0	13.2	Includes expenditure on office premises and communication
Supplies and materials	0.8	0.8	Office supplies and equipment
Furniture and equipment	24.6	39.9	Includes expenditure on software licences and maintenance fees
Total	**123.2**	**208.8**	

Source: Board analysis of ERP project data.

56. The budget and expenditure for the ERP project are not captured by project phase, making it difficult for the Administration to calculate a "should cost" for each stage of the project. To provide an indicator of how much the Administration originally expected to spend on each phase of the ERP project, the Board mapped the biennial resource requirements forecast in the first and second progress reports of the Secretary-General onto the project phases, using expected completion dates. The Board estimates that against an original budget for the prepare and design phase of $63.8 million, by the time the build phase commenced (July 2012), the Administration had spent $142.8 million, recognizing that the design was at this stage incomplete owing to the rephasing of the project. Using this method, the Board also estimates an original budget for the build phase of $131.5 million and $120.4 million for the deployment phase.

57. The Board will be seeking in advance of its next review a far more detailed analysis from the Administration, with clear justifications and assumptions, to underpin how and when the remaining resources will be used to support completion of the full scope of the build, implementation and deployment phases of the project. The status of the ERP design based on information provided by the Administration is summarized in annex III to the present report.

58. The Advisory Committee on Administrative and Budgetary Questions requested that the Board validate the estimates for future costs on the project. While the Board as a matter of principle does not validate estimates, it has considered whether it can provide any assurance that the process to establish the likely final cost to the project is robust. At the time of audit, however, because of the absence of a detailed integrated plan showing clear budgets and milestones, and independent project and technical assurance, the Board is unable to provide assurance that the project is on track in terms of what exactly should have been delivered to date (and the status of project readiness) versus the level of resources consumed. The Board also comments further in section III.D on project assurance on weaknesses in the processes for estimating and reporting costs and forecasts, including the impact of risk on the anticipated final cost. In these circumstances, the Board cannot provide assurance that the ERP project will successfully deliver its full functionality within the existing forecasts of time or cost.

59. Since December 2012, the project team has been using a project management tool called NOVA. The project team had created a reporting structure for the tool and was working to complete the assignment of historic costs (2012 onwards) to activity codes in order to enable activity-based costing. Costs are being assigned retrospectively to activity codes, and the Administration is in the process of assigning budgets to enable better monitoring of planned versus actual expenditure. The tool is not currently being used to forecast future costs, or to report information thereon to the steering committee. The total cost of this exercise is estimated to be $198,000.[3]

60. **The Board reiterates its previous recommendation that the Administration finalize its work to establish a methodology to link budget to milestones and deliverables to better support tracking progress against expenditure.**

Management of associated costs

61. In its previous report, the Board noted that neither the project budget nor relevant departmental budgets included costs related to the implementation of the ERP system, such as data cleansing, user testing and data archiving. The Board recommended that the Administration develop a robust estimate of all associated costs, and clarify how they will be allocated and met.

62. In response, the Administration has developed a principles paper, agreed by the project sponsor and the controller, which groups activities that may be identified as associated costs into three categories: business-as-usual costs, direct costs and indirect costs. The project director has the authority to use the agreed principles to decide if requests from business units for resources to meet costs associated with the ERP project should be met from the Umoja project budget. In the event of any disagreement, the Controller will arbitrate any final decision. For the proposed programme budget for 2014-2015, the Controller issued instructions to offices and departments stating that resource requirements will not be increased because of additional activities related to the ERP project. Offices and departments, including the ERP project itself, have been instructed to fund these activities from existing resources by prioritizing activities and finding efficiencies.

[3] This figure includes the cost of purchasing the software, consultancy support and the estimated project team staff costs.

63. The Board welcomes the improved clarity on classifying the associated costs of the ERP project, and in particular the enhanced involvement of the Controller, it remains concerned that the actual total cost to the United Nations of implementing the ERP project will not be captured under the proposed approach. The Board notes that the Administration has not met its commitment to create a robust estimate of all associated costs and has provided no indication of how it expects individual offices to quantify, manage and track the associated costs of the ERP project, or the effect of switching funding away from other activities, unrelated to the implementation of the ERP system, activities that may not take place as a result of switching funding.

64. **The Board recommends that the Administration issue guidance to departments and offices on how the associated costs of the ERP project should be quantified, managed and tracked.**

Execution of the design phase and the "get to green" recovery plan

65. The Advisory Committee on Administrative and Budgetary Questions requested that the Board review the execution of the design phase and follow up on the outcome of the "get to green" recovery plan initiated following reviews of the ERP system design by the software vendor and the Foundation build vendor in the first half of 2012. The Board noted that:

(a) The original not-to-exceed value of the contract with the design vendor was $11 million. By March 2013, the total amount committed to the design vendor was $60.5 million;

(b) The Administration's first report on the ERP project (A/64/380, para. 58) stated that the design phase would be completed in the second quarter of 2010. The design of Foundation was largely completed by 31 October 2012, although there remain some residual design items outstanding. Completion of the design for Umoja Extension 1 was ongoing at the time of the Board's audit in April 2013. Completion of the design of Umoja Extension 2 has been deferred until the second half of 2015 and is expected to be completed by December 2015;

(c) Reviews of the ERP system design by the software vendor and the Foundation build vendor noted that only 40 per cent of the design phase had been completed according to expectations.

66. The Foundation build vendor estimates that the resulting remedial action in the "get to green" plan required approximately 30,000 man-hours or $5.6 million. The work was of varying complexity (ranging from design items not signed off, elements of the design not started, formatting of a form, through to more complex design issues). The Board noted that, while the "get to green" project was closed on 31 October, there remained 25 residual ongoing design clarifications.

67. The project team advised the Board that there is a change control mechanism in place to govern these open design items and that they are not considered critical for the Foundation pilot. The Board notes that, while not critical, the open design items have had an impact on the change management team's ability to complete its role mapping activities at the UNIFIL pilot site owing to insufficient detail in the finance design.

68. Similar remedial work is currently under way for the design of Umoja Extension 1 (known as "get to build"). As at 30 April 2012, the "get to build" recovery plan has cost an estimated $2.1 million.

Procurement of major contractor resources — design phase

69. The Advisory Committee on Administrative and Budgetary Questions requested that the Board examine whether the services acquired for the project had been procured in the most economical manner possible. The main services under the design phase were delivered under a contract which was originally set with an estimated upper value ("cost-not-to-exceed" value) of $11 million. The pricing basis of this contract was "time and materials". As described in previous Board reports and in annual reports, the design phase of the ERP project encountered substantial difficulties and delays. As a result, three extensions to the original contract with the vendor were granted by the Headquarters Committee on Contracts (see table 3). As each of these extensions was made under the original contract, they too were made on a time and materials basis.

Table 3
Extensions to the contract with the ERP system design vendor
(United States dollars)

Amount	*Approval date*	*New total contract*
23 000 000	22 April 2010	34 000 000
7 482 554	10 December 2010	41 482 554
15 324 316	9 September 2011	56 806 870
3 158 611	6 December 2012	59 965 481

Source: Board analysis of ERP project data.

70. In August 2010, OIOS reviewed the original procurement of the design vendor and noted that:

(a) The commercial evaluation may have been inappropriate as widely varying bid prices were submitted (from $5.2 million to $18 million, indicating unclear specification of requirements);

(b) Bid prices were not used in the selection but instead the evaluation was made on a "blended day rate", which entailed the risk of giving an incomplete and misleading estimation of the final project cost (for example, a bidder using a higher day rate but with fewer total days could have a lower total cost);

(c) The widely varying bid prices were not adequately reflected in the blended day rate;

(d) The approval for the contract "cost not to exceed" of $11 million was significantly different from the total bid price submitted by the successful vendor, which may have reflected different assumptions or understanding of the requirements. The total bid price was not presented to the Headquarters Committee on Contracts.

71. In May 2011, the Administration made two changes to its procurement of resources for the build and deploy phases: (a) a move from the single vendor approach of the design phase to a multi-vendor approach with separate contracts for

project management and quality assurance, strategic advisory services, organizational change management, and professional technical services; (b) the majority of the ERP project's contract services would be procured on a fixed-price basis (with pricing ceilings) rather than on a time and materials basis.

Procurement of major contractor resources — build and deploy phase

72. In response to the request by the Advisory Committee on Administrative and Budgetary Questions, the Board reviewed the procurement of one of the two major build contracts. It noted that 18 vendors requested documentation in response to the expression of interest to support Umoja Extension, 10 vendors subsequently responded and 4 bids were received. Major contractors are now engaged for a substantial percentage of their work on a fixed-fee basis, with additional time and materials contracts used for work which requires greater flexibility.

73. The Board also noted that:

(a) The project team and Procurement Division overestimated the value of the Extension work as a not-to-exceed amount of $30 million, nearly three times the final agreed contract value (indicating a possible combination of poor market insight, poor specification of requirements and inadequate evaluation of vendor bids);

(b) Although Extension attracted four bids from major contractors, only two of these bids passed the technical evaluation (indicating a risk that the requirements were unclear or that the technical evaluation was unduly onerous or ineffective);

(c) A limited focus on the risks associated with the ability to integrate services with parallel work undertaken by a different vendor (in this case, Foundation work already in train by a different build vendor).

74. In the light of these findings, and the earlier OIOS review, the Board is concerned that at the outset of the project, the Administration did not display sufficient commercial insight into the expected costs of the ERP project, nor the commercial acumen necessary to effectively engage with the market and establish a response that would deliver optimal value from vendor contributions.

75. Although progress has been made through the inclusion of a greater proportion of fixed-price contractor support, the rationale for the current multi-vendor, hybrid pricing model did not appear sufficiently developed nor did it take into account the important implications for project delivery. For example, the commercial implications of the changed deployment approach (Foundation, Extension 1 and Extension 2) had not been reflected in a revised and documented commercial strategy; nor were the full potential implications of managing multiple major build vendors (for example, additional complexity and integration challenges) reflected in the overall project plan. Since the audit, the project team has presented to the steering committee its plan for developing a commercial strategy for the remaining procurements, and strengthening the project team to manage the potential addition of further vendors to the project. This is an ongoing issue that the Board will return to in its next audit.

76. The Board also observes that none of the contracts awarded for design, build, test or deploy have included payments tied to achievement of the ERP project's objectives. Such incentive-based payment models (for example, actual average time or cost to perform a sample of processes or early achievement of overall go-live

milestones) could achieve a greater alignment of interests and speed the delivery of value to the Organization.

77. The Administration expects to let a number of material value contracts in the future which may lead to further vendors being added to the project. They include system support arrangements for the ERP system after go-live, as well as design, build, test and deploy activities for Extension 2 (which it is currently estimated will cost in the range of $30 million, and which could bring a further major contractor requiring management by the project team). In addition, the Board notes that the Organization currently intends to manage deployments after cluster 1 with internal resources and that this may necessitate further contractor support.

78. The Administration has also contracted for services of a lower value from the software vendor, and for hosting services. In the case of the software vendor, the Administration has contracted for a new release, known as Integrated Business Solutions, which will accommodate processes specific to the Organization's terms and conditions, including complex staff travel and entitlement arrangements for staff. The value of this contract is about $3 million. The project team originally planned for this release to be delivered in the first quarter of 2013; however, it has subsequently been delayed to 31 May 2013, leaving the project team with an aggressive timeline to achieve the Extension deadline.

79. The Board notes that two procurement staff members are now embedded in the project team, but has seen insufficient evidence that the Administration undertook an assessment of whether it has the commercial and contract management skills to manage delivery of the ERP project. The memorandum provided to the Board stated only that existing staff levels should be maintained and included no assessment of capability or capacity.

80. At a broader level, the Board notes that the issues around commercial management of the ERP project indicate a more systemic weakness in the Administration's commercial skills, particularly when contracting with major global providers for complex services. The Administration does not have a well-developed approach to determining the most appropriate commercial strategy, and the contracting strategy that would flow from this. The consequence of this is that the Organization is unlikely to be engaging with the market in a way which best leverages its buying power, and positions suppliers to be able to offer maximum value for money by, for example, obtaining reputational benefits from working with the United Nations.

81. **The Board recommends that the project team prepare an overarching commercial strategy which seeks to (a) optimize the value from major suppliers to the ERP project, balancing cost and risks to delivery; and (b) sets out the parameters against which all future procurements should be undertaken.**

82. **The Board also recommends that the Administration review the need to more generally develop its commercial skills and ability to support major projects.**

83. Overall, in terms of project management, while acknowledging that progress has been made, the Board remains concerned that, despite the efforts of the Administration, the increasing level of challenge presented by the project timeline requires significant improvements in the project management approach of the ERP project.

84. **The Board recommends that the ERP project team finalize as a matter of urgency the work to develop (a) a detailed and fully integrated project plan, and (b) significantly enhanced project management arrangements to enable more detailed cost and timetable forecasting, and control of risks, including appropriate scenario and contingency planning.**

E. Project assurance

85. An effective system of assurance provides an independent assessment of whether the elements fundamental to successful project delivery are in place and operating effectively. In itself assurance does not deliver a project, but it can identify and help mitigate any risks to successful delivery present in a project's sponsorship, business case and benefits plan, technical solution, governance and reporting arrangements, contracting and supply chain strategies, commercial and delivery skills, funding and resourcing and overall project management approach.

86. As delays and cost escalation are common in ERP projects, it is therefore important to identify review points for updating costs and timelines so that options can be assessed on a realistic basis before key decisions are taken. Organizations that undertake major business transformation projects, such as an ERP implementation, typically establish a system of assurance where independent experts report to those who manage, sponsor and fund projects to help them make evidence-based decisions.

87. The Board previously identified that the ERP project had not been subject to systematic independent assurance and highlighted a number of key areas where project assurance may have aided decision makers and helped avoid significant project issues related to the robustness of the project timetable, budget and progress reporting. The Board recommended that the Administration put in place appropriate controls so that it could clearly demonstrate to the General Assembly that assurance can be placed on the reported timetable, and actual and anticipated costs for the ERP project. The Board considers, however, that the current approach provides limited assurance that the project budget and timetable are a realistic estimate of how much the project will cost and how long it will take to complete.

Assurance over project timetable and costs

88. The Board is concerned that the project timetable and forecast costs are not routinely updated to reflect slippage against forecast completion dates. For example, the completion of the third round of product integration testing had a revised completion date 35 days later than planned, but this slip had not been reflected in the high-level project timeline. The delay should also have led to a projected cost increase associated with, for example, additional staff time but this was not recognized in expenditure projections.

89. In addition, without a fully integrated project plan, the full extent of this delay cannot be determined and the project team cannot predict with any degree of confidence whether the assumptions underpinning the planned project completion date remain valid and robust. The Board notes that the project team is already routinely working additional hours and weekends in an effort to absorb delays within the overall project timetable and are showing signs of fatigue. The project timetable also assumes that all steps in the project will be completed on time against

very challenging deadlines and has not been subject to any adjustment for risk or optimism bias.

90. There is a lack of clarity over the project team's approach to estimating costs. The cost projections for the project do not set out clearly the estimating methodology and are not presented in a way that enables the data used in the estimates to be traced back and verified against their sources. This means that decision makers cannot be certain that the data used are reliable and valid.

91. Budgets are not assigned to milestones and deliverables. For example, the team lead for change management does not have a budget for training or change management activities. As a result, it is unclear what resources are needed to complete each project task and whether any funding constraints exist owing to overruns in any area of the project.

92. The Board is concerned that the project's timeline and budget do not make any allowance for uncertainty or risk, or provide an indication of the reliability of the underpinning data and assumptions. This undermines the credibility of the estimates and the quality of decision-making based on them. Good forecasts should show the potential impact of variance from plan on each element of the project, concerning possible changes to both the cost and the timetable.

93. The project team has arranged detailed reviews of the project by the software provider and the build vendors, but key aspects of the project, including the revised timetable and budget, have not been subject to regular, systematic independent challenge. For example, forecasts are focused on showing how the project timetable and costs remain on track according to plan, and contingency planning is underdeveloped. Actions taken to contain actual or expected cost and time overruns (for example, deferral of expenditure, cutting of costs or rescheduling of activities) are not immediately visible to the steering committee, nor are the consequences of such actions clearly assessed.

94. In effect, the steering committee does not have any standing independent assurance mechanism to help them challenge the information and assumptions used to support their decision-making, as for example:

(a) A project status update presented to the steering committee in October 2012 identified that the risk entitled: "No common understanding of accepted critical path, dependencies, priorities, and deadlines, etc." had been closed. The reported resolution was "project plans that are clearly articulated and contain dependency information". The Board has seen no evidence of this and during its audit was unable to identify a critical path or a single integrated project plan that mapped project dependencies across all activities to be undertaken by the project team, system build contractors or the wider United Nations;

(b) Process owners' benefits realization dashboards are rated "green", meaning that plans are in place and agreed. As the Board has noted earlier in the report, these have not yet been developed and agreed.

Assurance over project risks

95. When estimates are presented to decision makers, they should be accompanied with information about underlying assumptions, data quality and the impacts that risks and uncertainties might have on project costs and timescales. For a project

team, understanding risks to delivery allows management to minimize the likelihood that they may arise and plan mitigating actions should they arise. The result is a disciplined environment for decision-making with less time spent "fire-fighting"; fewer sudden shocks and unwelcome surprises; leading to a more efficient use of resources.

96. The Board previously identified a number of weaknesses in the way project risks were managed, and made a number of recommendations covering ownership of risks, assessment of the likelihood of those risks arising and quantification of their likely impact. The Board also recommended that risk monitoring should become part of the ongoing budgeting and resourcing arrangements. The Advisory Committee on Administrative and Budgetary Questions subsequently requested that the Board review the effectiveness of risk mitigation strategies and the project's risk management support structure (see A/67/565).

97. The Board notes that the project team has developed a risk and issue plan and implemented a revised approach to identifying and managing project risks. This includes a non-financial assessment of the likelihood and potential impact of the risk materializing, proposed mitigating actions, with risks now assigned to named individuals for action. A high-level "heat map" of key risks is presented to the steering committee at each of its meetings to inform it of key project risks, along with a written list of critical risks being mitigated and major project risks identified. The Board comments on the steering committee's role in the monitoring of risks later in this report (section III.F).

98. The Board reviewed the ERP project's risks, assumptions, issues, and dependencies system and noted that:

(a) As at 8 April 2013, the risks, assumptions, issues, and dependencies system contained 690 entries (199 risks and 491 issues) with instances where risks were duplicated or could be consolidated to enable more effective monitoring. The number of risks listed makes management of them very difficult and indicates weakness in risk categorization and monitoring;

(b) Risks are not being managed and closed quickly enough. Of the 199 risks listed, 125 (63 per cent) were unresolved. The duration for which the unresolved risks had been open also indicates that they are not being resolved in a timely manner (see table 4). For example, on 15 January 2013 the absence of a high-level project timeline beyond 1 July 2013 was raised as a risk and was given the highest rating for criticality and likelihood of arising. As at 8 April it still had a "draft" status (meaning it had not been analysed or acted upon) and remained unresolved;

Table 4
Average age of unresolved project risks by assessment of potential impact on project delivery

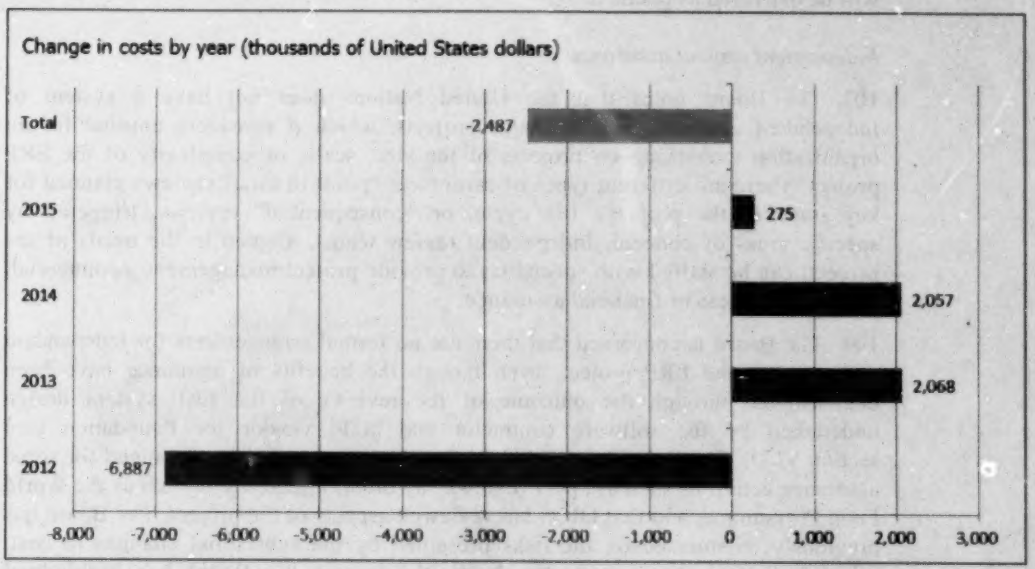
	Critical	*Significant*	*High*	*Moderate*	*Low*
Number of unresolved project risks	20	30	42	27	6
Average age at 8 April 2013 (in days)	265.5	312	178	222.7	165.9

Source: Board analysis of ERP project data.

(c) The impact of project risks is not quantified financially or in terms of the potential impact on the project timeline. Every risk has a potential cost, either in terms of a monetary value or a management time for mitigation. However, risk monitoring is not part of the ongoing budgeting and planning arrangements for the project and neither budget nor timetable forecasting take account of the potential impact of risk to enable effective scenario planning;

(d) Project forecasts do not provide any indication of potential variance arising from uncertainty or risk. All estimates will contain risks and uncertainties and decision makers should understand how they might have an impact on project costs. For example, actual expenditure for 2012 was $6.9 million less than forecast in August 2012, only four months earlier (see figure III). This level of variance within such a short period of time suggests that forecasting is immature and is indicative of a project budget that is subject to significant uncertainty or risk. This could indicate that costs are being reduced or deferred in an effort to contain cost overruns or account for changes to the project timetable.

Figure III
Changes in forecast costs between August 2012 and March 2013



Source: Board analysis of ERP project data.

99. The Board notes that guidance on the handling of risks and issues was prepared in November 2012, and that the team's approach to risk management is under review. The Administration, based on the review of risk management, envisages that staff will be given training on a common approach to the identification, classification and management of risks.

100. The Board welcomes the steps taken to date by the project team to develop its approach to managing risks and in bringing them to the attention of the steering committee in a more open and user-friendly way. But the Board remains concerned that project risks are not being effectively managed, acted upon quickly enough or

being costed to support more effective consideration of their likely impact and decision-making on their handling.

101. **The Board reiterates its previous recommendation that the project establish regular risk monitoring as part of the ongoing budgeting and resourcing arrangements.**

Technical assurance

102. The Board examined arrangements to provide technical assurance on the effectiveness and functionality of the live system. The Administration had engaged the software and build vendors to conduct periodic, but limited, reviews of system functionality. The Board would have expected independent and more comprehensive reviews to have been undertaken at key stages of the project life cycle and considered at the steering committee level. The Board acknowledges that the system has been constructed by experts, but considers that independent technical assurance would provide the steering committee more confidence that the system is designed to use the most appropriate functionality, to match the needs of the United Nations. As such, the Board can provide no assurance that the functionality of the live system will be delivered as planned.

Independent project assurance

103. The Board notes that the United Nations does not have a system of independent assurance for its major projects, which it considers unusual for an organization embarking on projects of the size, scale, or complexity of the ERP project. There are different types of assurance: "point in time" reviews planned for key stage in the project's life cycle, or "consequential" reviews, triggered by specific areas of concern. Independent review teams, aligned to the needs of the project, can be staffed with specialists to provide project management, commercial, technical, process or financial assurance.

104. The Board is concerned that there are no formal arrangements for independent assurance of the ERP project, even though the benefits of assurance have been demonstrated through the outcome of the reviews of the ERP system design undertaken by the software contractor and build vendor for Foundation (see section VI.D). The Board acknowledges that the project team has arranged for some assurance activities such as "peer reviews" by other organizations such as the World Food Programme, and that OIOS has reviewed aspects of the project. The Board has previously commented on the risks presented by the substantial changes to cost, schedule and deployment approach. In this report the Board has highlighted additional risks around the substantial escalation of activities over the coming months, the commercial strategy, the use of information and wider business transformation. In the light of these challenges, the Board considers it imperative that the Administration design and implement suitable assurance mechanisms to ensure that the steering committee and General Assembly are fully informed and able to challenge the project on scenarios which may impact on current performance and on future delivery. The Board considers that there would be merit in the Administration exploring the costs and benefits of establishing a proportionate system of integrated and independent assurance for its major projects.

105. **The Board recommends that the Administration design and implement assurance mechanisms which enable the steering committee to challenge the**

project on scenarios which may impact on current performance and on future delivery.

F. Governance

106. Successful delivery of the ERP project will require strong senior level ownership, supported through governance arrangements that encourage informed and timely challenges, with roles, accountabilities and responsibilities for decision-making clearly defined. In its previous report, the Board identified a number of weaknesses in project governance, including: a lack of a single senior responsible owner; a lack of senior ownership for key project deliverables such as business transformation; a lack of critical challenge to actions proposed by the project team; and a failure to tackle effectively the root causes of project delay.

107. The Board is encouraged that the Administration has taken a number of steps to improve the governance of the ERP project. They include:

(a) Designating the Under-Secretary-General for Management as the senior project owner;

(b) Appointment of a permanent project director for the ERP project at the Assistant Secretary-General level, reporting to the Under-Secretary-General for Management;

(c) Inclusion in senior managers' 2013 compacts of objectives and performance measures related to providing support for implementation of the ERP project supported by a March 2013 letter from the Under-Secretary-General for Management to heads of offices away from Headquarters and regional commissions, emphasizing the need for them to support the Office of Information and Communications Technology in its effort to achieve the level of commonality and standardization of information and communications technology infrastructures, software and services required to implement the ERP project successfully;

(d) Designation of five process owners with responsibility for implementation of Secretariat-wide business processes in their area of expertise and benefits realization. The responsibilities of process owners were further described in a January 2013 letter from the Secretary-General to all heads of departments and offices;

(e) Increasingly integrated working between the project team and the Office of Information and Communications Technology, with the latter making the implementation of the ERP project a key priority as requested by the General Assembly, and reiterated in the Board's previous reports on the ERP project and the handling of information and communications technology affairs in the Secretariat. This relationship is an important enabler to the delivery of benefits from the ERP project, as a significant level of the resource of the Office of Information and Communications Technology will be required to support the ERP system: (a) in the period following implementation (when there will likely be problems embedding the system); and (b) throughout the lifetime of the system, and could lead to a reprioritization of the resources of the Office of Information and Communications Technology.

108. The Board acknowledges the work done to date by the Administration to develop a more coherent approach to business transformation and process ownership but it is vital that the authority of process owners to drive much-needed business change and benefits be consistently and visibly reinforced by senior management.

109. The steering committee, reporting to the management committee, is a key part of the governance structure and is responsible for overseeing the implementation of the ERP project. Chaired by the Under-Secretary-General for Management, it includes the Chef de Cabinet, the Under-Secretary-General for Field Support, the Controller, the Chief Information Technology Officer, the Under-Secretary-General for Internal Oversight Services, as well as the five process owners. In the view of the Board, the membership of the steering committee should enable it to:

- Define and support the realization of the project's aims
- Review the budgetary and commercial strategy for the project
- Monitor project costs, timelines and risks;
- Make policy decisions to support delivery of the project.

110. The Board noted increased recognition among interviewees of the increased engagement of the steering committee, and of the important roles being played by the project owner and process owners. The project team routinely presents the steering committee with information on project status, covering project achievements, risks, and actual expenditure against overall allotment.

111. The Board notes that there are still areas to improve, many of which are related to the need to strengthen other aspects of the project:

(a) The steering committee is receiving time, cost and delivery information but the Board considers that this could be improved through explicitly linking expenditure against deliverables to date, forecast expenditure, the potential impact of risks on cost or timetable, or any proposed actions to contain cost overruns;

(b) The steering committee is given information on task completion, but the lack of an integrated plan with budgets linked to milestones means it cannot easily judge the overall status of the project;

(c) The steering committee discusses selected major project risks. For example, the committee discussed organizational readiness at both its October 2012 and December 2012 meetings. However, no specific actions were recorded in the meeting minutes relating to those discussions;

(d) The proposed project timeline, deployment approach and budget for the ERP system were discussed at two steering committee meetings in 2012 but the minutes and supporting meeting papers provide limited evidence of critical challenge to the project team's proposals. Given the aggressive nature of the deployment schedule, and previously identified weaknesses in cost and time projections, the Board would have expected to have seen a greater level of challenge underpinned by detailed supporting papers setting out uncertainty levels and a range of potential options or scenarios, with best case, worst case and likely case scenarios for cost, time and quality;

(e) As noted in section III.E, there is no system of independent assurance to assist the steering committee to challenge the project.

112. **The Board recommends that to support better informed decision-making, the project team provide status updates to the steering committee that reflect uncertainty levels relating to forecasts concerning cost, time and quality (for example, by including best case, worst case and likely case scenarios).**

IV. Acknowledgements

113. The Board wishes to express its appreciation for the cooperation and assistance extended to its staff by the Under-Secretary-General for Management and the Project Director, and members of their staff.

(*Signed*) Amyas **Morse**
Comptroller and Auditor-General of the United Kingdom of
Great Britain and Northern Ireland
Chair of the United Nations Board of Auditors
(Lead Auditor)

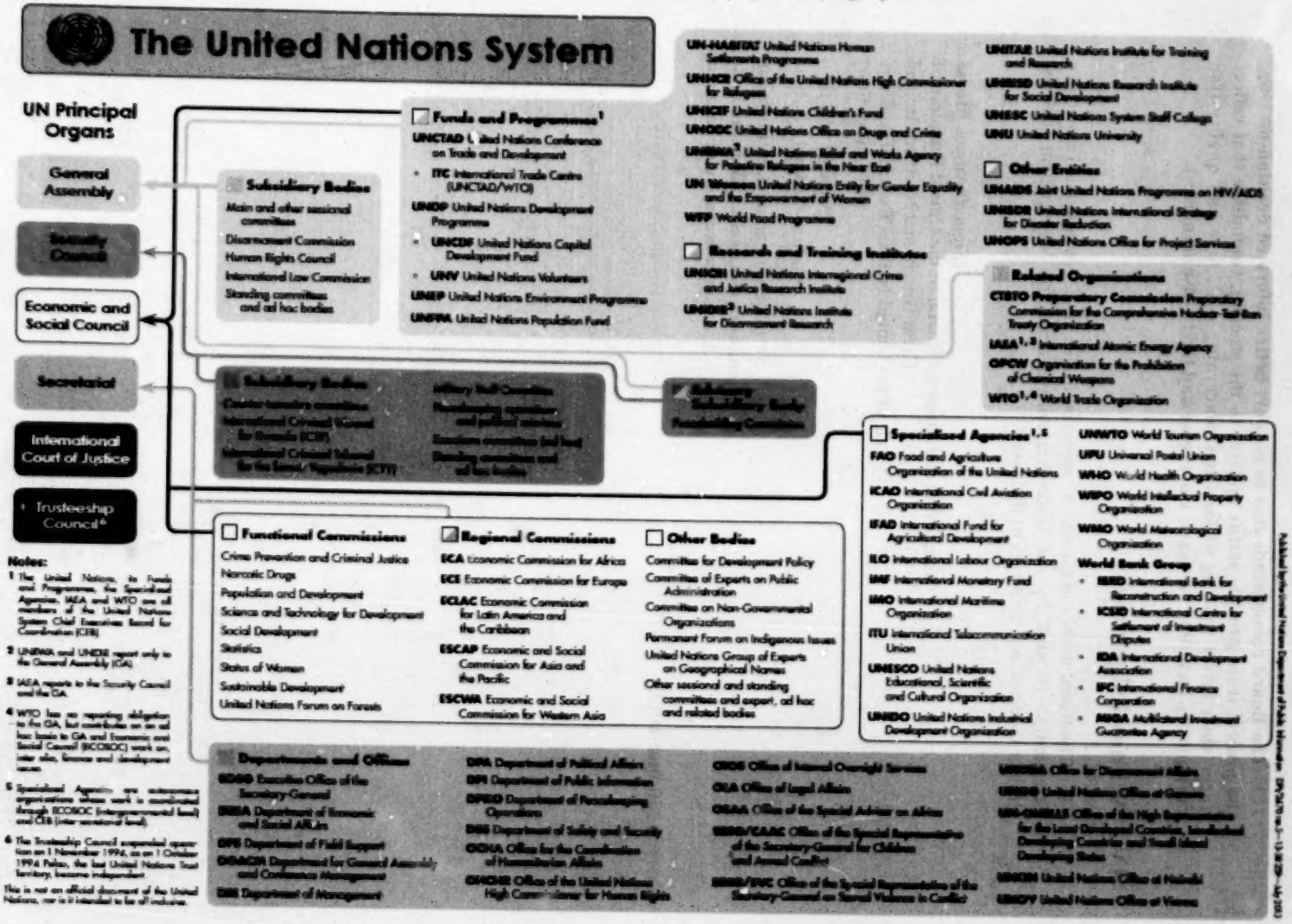
(*Signed*) **Liu** Jiayi
Auditor-General of China

(*Signed*) Ludovick S. L. **Utouh**
Controller and Auditor-General of the
United Republic of Tanzania

30 June 2013

Annex I

Organizational scope of the enterprise resource planning system


The United Nations System
UN Principal Organs
General Assembly
Security Council
Economic and Social Council
Secretariat
International Court of Justice
Trusteeship Council[6]
Subsidiary Bodies
Main and other sessional committees
Disarmament Commission
Human Rights Council
International Law Commission
Standing committees and ad hoc bodies
Funds and Programmes[1]
UNCTAD United Nations Conference on Trade and Development
ITC International Trade Centre (UNCTAD/WTO)
UNDP United Nations Development Programme
UNCDF United Nations Capital Development Fund
UNV United Nations Volunteers
UNEP United Nations Environment Programme
UNFPA United Nations Population Fund
UN-HABITAT United Nations Human Settlements Programme
UNHCR Office of the United Nations High Commissioner for Refugees
UNICEF United Nations Children's Fund
UNODC United Nations Office on Drugs and Crime
UNRWA[2] United Nations Relief and Works Agency for Palestine Refugees in the Near East
UN Women United Nations Entity for Gender Equality and the Empowerment of Women
WFP World Food Programme
Research and Training Institutes
UNICRI United Nations Interregional Crime and Justice Research Institute
UNIDIR[2] United Nations Institute for Disarmament Research
UNITAR United Nations Institute for Training and Research
UNRISD United Nations Research Institute for Social Development
UNSSC United Nations System Staff College
UNU United Nations University
Other Entities
UNAIDS Joint United Nations Programme on HIV/AIDS
UNISDR United Nations International Strategy for Disaster Reduction
UNOPS United Nations Office for Project Services
Related Organizations
CTBTO Preparatory Commission Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization
IAEA[1,3] International Atomic Energy Agency
OPCW Organization for the Prohibition of Chemical Weapons
WTO[1,4] World Trade Organization
Subsidiary Bodies
Counter-terrorism committee
International Criminal Tribunal for Rwanda (ICTR)
International Criminal Tribunal for the former Yugoslavia (ICTY)
Military Staff Committee
Peacekeeping operations and political missions
Sanctions committees (ad hoc)
Standing committees and ad hoc bodies
Subsidiary Bodies
Peacebuilding Commission
Specialized Agencies[1,5]
FAO Food and Agriculture Organization of the United Nations
ICAO International Civil Aviation Organization
IFAD International Fund for Agricultural Development
ILO International Labour Organization
IMF International Monetary Fund
IMO International Maritime Organization
ITU International Telecommunication Union
UNESCO United Nations Educational, Scientific and Cultural Organization
UNIDO United Nations Industrial Development Organization
UNWTO World Tourism Organization
UPU Universal Postal Union
WHO World Health Organization
WIPO World Intellectual Property Organization
WMO World Meteorological Organization
World Bank Group
IBRD International Bank for Reconstruction and Development
ICSID International Centre for Settlement of Investment Disputes
IDA International Development Association
IFC International Finance Corporation
MIGA Multilateral Investment Guarantee Agency
Functional Commissions
Crime Prevention and Criminal Justice
Narcotic Drugs
Population and Development
Science and Technology for Development
Social Development
Statistics
Status of Women
Sustainable Development
United Nations Forum on Forests
Regional Commissions
ECA Economic Commission for Africa
ECE Economic Commission for Europe
ECLAC Economic Commission for Latin America and the Caribbean
ESCAP Economic and Social Commission for Asia and the Pacific
ESCWA Economic and Social Commission for Western Asia
Other Bodies
Committee for Development Policy
Committee of Experts on Public Administration
Committee on Non-Governmental Organizations
Permanent Forum on Indigenous Issues
United Nations Group of Experts on Geographical Names
Other sessional and standing committees and expert, ad hoc and related bodies
Departments and Offices
EOSG Executive Office of the Secretary-General
DESA Department of Economic and Social Affairs
DFS Department of Field Support
DGACM Department for General Assembly and Conference Management
DM Department of Management
DPA Department of Political Affairs
DPI Department of Public Information
DPKO Department of Peacekeeping Operations
DSS Department of Safety and Security
OCHA Office for the Coordination of Humanitarian Affairs
OHCHR Office of the United Nations High Commissioner for Human Rights
OIOS Office of Internal Oversight Services
OLA Office of Legal Affairs
OSAA Office of the Special Adviser on Africa
SRSG/CAAC Office of the Special Representative of the Secretary-General for Children and Armed Conflict
SRSG/SVC Office of the Special Representative of the Secretary-General on Sexual Violence in Conflict
UNODA Office for Disarmament Affairs
UNOG United Nations Office at Geneva
UN-OHRLLS Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNON United Nations Office at Nairobi
UNOV United Nations Office at Vienna

Notes:

1 The United Nations, its Funds and Programmes, the Specialized Agencies, IAEA and WTO are all members of the United Nations System Chief Executives Board for Coordination (CEB).

2 UNRWA and UNIDIR report only to the General Assembly (GA).

3 IAEA reports to the Security Council and the GA.

4 WTO has no reporting obligations to the GA, but contributes on an ad hoc basis to GA and Economic and Social Council (ECOSOC) work on, inter alia, finance and development issues.

5 Specialized Agencies are autonomous organizations whose work is coordinated through ECOSOC (intergovernmental level) and CEB (inter-secretariat level).

6 The Trusteeship Council suspended operation on 1 November 1994, as on 1 October 1994 Palau, the last United Nations Trust Territory, became independent.

This is not an official document of the United Nations, nor is it intended to be all-inclusive.

Annex II

Key developments in the enterprise resource planning project

August 2006	The General Assembly endorses the Secretary-General's proposal to implement an enterprise resource planning (ERP) system across the United Nations Secretariat.
April 2008	The timetable for the ERP project is divided into four stages: prepare; design; build; and deploy. The Administration forecasts that the ERP project will be completed by the end of 2012 at an anticipated final cost of $248.3 million.
October 2009	The anticipated final cost of the project increases to $315.8 million. The Administration attributes the increase to an additional 36 project posts and an increase in travel costs to support instructor-led training rather than the train-the-trainer approach originally proposed. The Administration projects that the ERP project will be completed by the end of 2012, one year later than originally planned.
September 2010	The anticipated final cost of the project is unchanged at $315.8 million but the Administration redistributes resources from contractual services to support the creation of an additional 10 project posts.
May 2011	Following delays with the project, the Steering Committee divides the build and deployment stages into two phases (Foundation and Extension) to support the mandate to implement Independent Public Sector Accounting Standards (IPSAS) by 2014. The Administration projects that the ERP project will be completed by the end of 2015, three years later than originally planned.
September 2011	The anticipated final cost of the project is unchanged at $315.8 million despite the Administration's decision to phase implementation and the announcement of a two-year delay to the project.
September 2012	The Administration announces further changes to the implementation approach and divides the build and deployment stages of the project into three phases (Umoja Foundation, Umoja Extension 1 and Umoja Extension 2). The Administration projects that the ERP project will be completed by the end of 2018, six years later than originally planned. The Administration states that it expects the project to cost $348.1 million to the end of December 2015, by which time Umoja Foundation and Umoja Extension 1 are scheduled to have been deployed. Based on historic rates of expenditure, the Administration projects that a further $30 million will be required to stabilize Umoja Extension 1 and implement Umoja Extension 2 between 2016 and 2018.

Annex III

Functional scope of the enterprise resource planning system and status of the design and build phase as at 30 June 2013

Phase	*Umoja Foundation*	*Umoja Extension 1*	*Umoja Extension 2*
Scope	122 processes with functionality to support IPSAS requirements. Its scope includes: finance; procurement of goods and services; and assets, inventory and property management.	66 processes across human resources and travel. Its scope includes: organizational and position management, personnel administration, entitlements, benefits, time management, payroll, travel initiation, travel expenses and online booking. A self-service portal will also enable staff and managers to access and update personal information and submit requests, claims, and settlement forms.	133 processes with functionality related to budget formulation, force planning, programme management, supply chain planning, warehouse management, conference and event management, full grants management and commercial activities.
Design (percentage complete)	95	86	40
Build (percentage complete)	90	45	0

Source: Umoja project team estimates as at 30 June 2013.

Note: The completion of the design for Umoja Extension 2 has been deferred until the second half of 2015. The build phase is scheduled to follow prior to two successive annual releases in January 2017 and a year later in 2018. This percentage completion refers to the blueprint design.

Annex IV

Analysis of the status of implementation of the recommendations of the Board for the year ended 31 December 2012

	Summary of recommendation (A/67/164)	*Paragraph*	*Financial period first made*	*Fully implemented*	*Under implementation*	*Not implemented*	*Overtaken by events*	*Board comments on status — June 2013*
1	The Board recommends that the project director: (a) consider the gaps identified by the Board and, on that basis, reassess the benefits model for the ERP system in consultation with process owners; (b) agree on a baseline with identifiable benefit figures to be realized by each process owner; (c) determine what the actual cashable savings will be; (d) assign accountability to process owners for realizing the agreed savings and benefits and for developing plans to achieve them; and (e) communicate to the General Assembly what changes to the Organization it proposes to implement to realize the intended annual benefits from the project.	19	2011		X			The Administration has implemented parts (a) and (b) of the recommendation and are making progress on implementing parts (c) and (d). The Board considers part (e) closed, as it will follow up on this aspect of benefits realization as part of recommendation 2. The Board has no concerns about the status of this recommendation as it considers benefits planning to be an iterative process over multiple years, but would expect this recommendation to be implemented before the next report of the Board in 2014.
2	The Board recommends that, in order to enable transparent planning and reporting of the achievement of the projected benefits of implementing the ERP system and to ensure clarity as to whether their achievement will require posts to be released or redeployed, the Administration consult the General Assembly on its benefit-realization plans.	21	2011		X			The Administration is currently producing benefits realization plans and intends to present an update to the General Assembly in the fifth progress report on Umoja.

	Summary of recommendation (A/67/164)	Paragraph	Financial period first made	Fully implemented	Under implementation	Not implemented	Overtaken by events	Board comments on status — June 2013
3	The Board also recommends that the Administration: (a) assign clear responsibility for all tasks related to developing proposals for realizing further benefits through changes in the approach to service delivery; and (b) publish a timetable against which those proposals will be developed.	23	2011		X			The Administration is making clear progress on this recommendation. The process owners are responsible for realizing benefits in the current service delivery model. Discussions are ongoing regarding any future service delivery model.
4	The Board recommends that the Administration: (a) clearly set out how it will manage change and embed more efficient and standardized working practices across the Organization; and (b) develop plans for how staff will be supported to develop the skills, capacity and capability to adopt different working practices.	31	2011		X			The Administration is making progress on this recommendation but has not yet clarified how it will embed streamlined and standardized working practices across the Organization.
5	The Board also recommends that the Administration establish a formal approach to managing and improving business processes to enable continuous reform and improvement following implementation of the ERP system.	32	2011			X		The Board has seen no evidence of progress in this area. There is no formal approach to continuous reform and improvement in business areas, but we would expect this to be in place as part of roll-out in 2013 and post-implementation in 2014 (noting that a true system of continuous improvement can take several years to fully embed). The measures proposed by the Administration relate to problem resolution in the roll-out of the ERP system, not an established system of continuous process

	Summary of recommendation (A/67/164)	Paragraph	Financial period first made	Fully implemented	Under implementation	Not implemented	Overtaken by events	Board comments on status — June 2013
								improvement as part of business as usual across the United Nations. The Board considers that this recommendation is for the wider Administration to own and manage and not the Umoja project team.
6	The Board recommends that the project director: (a) establish the level of engagement with the ERP project across the Organization; (b) develop plans for addressing any shortfalls in communications or engagement; and (c) develop a communications and engagement strategy for the implementation phase.	41	2011	X				The development and use of a communications and engagement strategy satisfies this recommendation. The Board has made a further recommendation in section III.C of this report to enhance the Administration's approach to communications and engagement, particularly as the ERP project prepares to roll out in the Secretariat.
7	The Board recommends that the Administration: (a) establish a detailed project plan linking the budget to milestones and deliverables; (b) clearly set out who owns each part of the budget and what they are responsible for delivering; (c) establish arrangements for capturing information on expenditure and progress to enable it to more effectively monitor progress, maintain closer control over costs and improve decision-making about future expenditure.	52	2011		X			The Administration has made some progress but more needs to be done as discussed in section III.D of the present report. Each strand of the project now has a more detailed project plan, but these have not been integrated into the overall project plan. The Administration has commissioned work to achieve this, and is undertaking an exercise to link budget to deliverables. The Board will return to this in its next audit.

	Summary of recommendation (A/67/164)	*Paragraph*	*Financial period first made*	*Fully implemented*	*Under implementation*	*Not implemented*	*Overtaken by events*	*Board comments on status — June 2013*
8	The Board recommends that the steering committee assess whether the Administration has an adequate number of staff with the appropriate commercial and contract management skills necessary to manage contracts with the multiple parties responsible for delivering different interdependent parts of the project.	57	2011		X			The Board has seen evidence that the steering committee has considered its concerns. The previous Assistant Secretary-General OCSS provided a memorandum to the Assistant Secretary-General for Umoja in February 2013 stating that there were adequate commercial and contract management skills in the project. The Board has requested but not seen the approach used and evidence this assessment is based on. If this is adequate, the Board will close the recommendation as part of the next audit.
9	The Board recommends that the project director and the steering committee: (a) reassess the feasibility of the project timetable and budget, taking into account the possibility of optimism bias and the impact of identified risks, and prepare a robust forecast of the cost and the time needed to complete the project under the current scope; and (b) report the findings and proposals to address any increase in cost and time identified to the General Assembly at the earliest opportunity.	72	2011		X			The Administration reported to the General Assembly on a revised project timeline and budget in the Umoja fourth progress report (A/67/360). The Board considers that the current approach to budgeting does not include a robust and explicit pricing of optimism bias or risk as part of the overall forecast.

	Summary of recommendation (A/67/164)	Paragraph	Financial period first made	Fully implemented	Under implementation	Not implemented	Overtaken by events	Board comments on status — June 2013
10	The Administration agreed with the Board's recommendation that senior management put appropriate controls in place so that they can clearly demonstrate to the General Assembly that assurance can be placed on the reported timetable, and actual and anticipated costs for the ERP project.	75	2011		X			The Administration has made progress on this recommendation by, for example, the steering committee actively reviewing the timetable, actual and anticipated costs of the project. The issues highlighted in section III.D regarding the current approach to cost forecasting means that this recommendation cannot be classed as fully implemented until recommendations 7 and 9 are satisfied.
11	The Board also recommended that the project team and budget owners work together to: (a) develop a robust estimate of all associated costs of the project; (b) clarify the allocation of associated costs as a matter of urgency to give budget owners as much time as possible to make preparations to meet these costs; and (c) develop proposals as to how these associated costs will be met.	76	2011	X				
12	The Board recommends that the chair of the steering committee and the project director: (a) assign clear ownership of project risks to those with the authority to address such risks; (b) assess and document the likelihood of the occurrence of	80	2011		X			The Board acknowledges the positive progress to improve risk management in the Umoja project, but also highlights residual concerns in section III.E that need to be addressed before this recommendation can be closed.

	Summary of recommendation (A/67/164)	*Paragraph*	*Financial period first made*	*Fully implemented*	*Under implementation*	*Not implemented*	*Overtaken by events*	*Board comments on status — June 2013*
	each risk, including quantified impacts; and (c) establish regular risk monitoring as part of the ongoing budgeting and resourcing arrangements.							
13	The Board recommends that the Administration: (a) appoint a single senior responsible owner with the requisite authority, across the departments and entities in which the ERP system is to be implemented, to drive the project forward; (b) clearly communicate the identity and authority of the senior responsible owner to all staff; and (c) finalize the planned revisions to the project's governance structure at the earliest opportunity, including assigning clear accountabilities for the completion of all major tasks.	99	2011	X				This recommendation has been implemented. For parts (a) and (b), the Under-Secretary-General for Management is the senior responsible owner, this has been communicated to all staff and also the General Assembly; this is well understood by all staff the Board interviewed. For part (c), the governance structure has been set, with process owners taking a much more active role in decision-making at the steering committee. All staff interviewed commented on improved ownership of the project.
	Total			**3**	**9**	**1**		
	Percentage share of total			**23**	**69**	**8**		